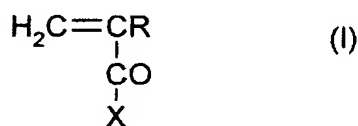


The following listing of claims will replace all prior versions, and listings, of claims in this application:

1. (Currently Amended) ~~Heat-induced~~ A heat-induced gelling foaming composition comprising an aqueous phase, said aqueous phase comprising a polymer comprising water-soluble units and units having in water a lower critical solution temperature LCST, the heat-induced demixing temperature in aqueous solution of said units with an LCST being from 5 to 40°C for a concentration of said units in water of 1% by mass, and the concentration of said polymer in said composition being such that its gel point is in the range from 5 to 40°C.
2. (Currently Amended) ~~Composition~~ The composition according to Claim 1, in which the heat-induced demixing temperature in aqueous solution of the units with an LCST of the polymer is from 10 to 35°C for a concentration by mass in water of 1% of the said units.
3. (Currently Amended) ~~Composition~~ The composition according to Claim 2, in which the concentration of the polymer in the composition is such that its gel point is in the range from 10 to 35°C.
4. (Currently Amended) ~~Composition~~ The composition according to Claim 1, in which the polymer is in the form of a block polymer comprising blocks consisting of water-soluble units alternating with blocks ~~consisting~~ of units with an LCST, or in the form of a grafted polymer whose backbone is formed by water-soluble units, said backbone bearing grafts ~~consisting~~ of units with an LCST, ~~said polymers possibly being partially crosslinked.~~
5. (Currently Amended) ~~Composition~~ The composition according to ~~any one of the preceding claims~~ Claim 1, in which the water-soluble units are totally or partially capable of being obtained by polymerization, ~~or by polycondensation, or alternatively consist~~ comprise totally or partially of natural polymers or modified natural polymers.

6. (Currently Amended) ~~Feaming~~ The composition according to Claim 5, in which the water-soluble units are totally or partially capable of being obtained by polymerization, ~~especially free-radical polymerization~~, of at least one monomer ~~chosen from the following monomers~~ selected from the group consisting of:

- (meth)acrylic acid;
- vinyl monomers of formula (I) below:



in which:

- R is ~~chosen from~~ H, -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub> or -C<sub>3</sub>H<sub>7</sub>, and
- X is ~~chosen from~~:
- alkyl oxides of -OR' type in which R' is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 6 carbon atoms, optionally substituted with at least one halogen atom (selected from the group consisting of iodine, bromine, chlorine or and fluorine); a sulphonic (-SO<sub>3</sub><sup>-</sup>), sulphate (-SO<sub>4</sub><sup>-</sup>), phosphate (-PO<sub>4</sub>H<sub>2</sub>); hydroxyl (-OH); primary amine (-NH<sub>2</sub>); secondary amine (-NHR<sub>1</sub>), tertiary amine (-NR<sub>1</sub>R<sub>2</sub>) or quaternary amine (-N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>) group with R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of R' + R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> does not exceed 7; and
- -NH<sub>2</sub>, -NHR<sub>4</sub> and -NR<sub>4</sub>R<sub>5</sub> groups in which R<sub>4</sub> and R<sub>5</sub> are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon-based radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon

atoms of  $R_4 + R_5$  does not exceed 7, the said  $R_4$  and  $R_5$  optionally being substituted with a halogen atom (selected from the group consisting of iodine, bromine, chlorine or and fluorine); a hydroxyl ( $-OH$ ); sulphonic ( $-SO_3^-$ ); sulphate ( $-SO_4^-$ ); phosphate ( $-PO_4H_2$ ); primary amine ( $-NH_2$ ); secondary amine ( $-NHR_1$ ), tertiary amine ( $-NR_1R_2$ ) and/or quaternary amine ( $-N^+R_1R_2R_3$ ) group with  $R_1$ ,  $R_2$  and  $R_3$  being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of  $R_4 + R_5 + R_1 + R_2 + R_3$  does not exceed 7;

- maleic anhydride;
- itaconic acid;
- vinyl alcohol of formula  $CH_2=CHOH$ ;
- vinyl acetate of formula  $CH_2=CH-OCOCH_3$ ;
- N-vinyl lactams such as N-vinylpyrrolidone, N-vinylcaprolactam and N-butyrolactam;
- vinyl ethers of formula  $CH_2=CHOR_6$  in which  $R_6$  is a linear or branched, saturated or unsaturated hydrocarbon radical containing from 1 to 6 carbon atoms;
- water-soluble styrene derivatives, especially styrene sulphonate;
- dimethyldiallylammonium chloride; and
- vinylacetamide.

7. (Currently Amended) ~~Feaming~~ The composition according to Claim 5, in which the water-soluble units of the polymer ~~consist~~ comprises totally or partially of polycondensates or of natural polymers or modified natural polymers ~~chosen from of one or more of the following components~~ polymers selected from the group consisting of:

- water-soluble polyurethanes;
- xanthan gum;
- alginates and derivatives thereof ~~such as propylene glycol alginate;~~

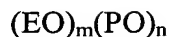
- cellulose derivatives ~~and especially carboxymethylcellulose, hydroxypropylcellulose, hydroxyethylcellulose and quaternized hydroxyethylcellulose;~~
- galactomannans and derivatives thereof, ~~such as Konjac gum, guar gum, hydroxypropylguar, hydroxypropylguar modified with sodium methylcarboxylate groups, and hydroxypropyltrimethylammonium guar chloride;~~ and
- polyethyleneimine.

8. (Currently Amended) ~~Feaming~~ The composition according to ~~any one of Claims 5 to 7~~ Claim 5, in which the water-soluble units of the polymer have a molar mass ranging from 1000 g/mol to 5 000 000 g/mol when they constitute the water-soluble backbone of a grafted polymer, or a molar mass ranging from 500 g/mol to 100 000 g/mol when they constitute a block of a multiblock polymer.

9. (Currently Amended) ~~Feaming~~ The composition according to ~~any one of Claims 1 to 8~~ Claim 1, in which the units with an LCST of the polymer ~~consist~~ comprises of one or more polymers ~~chosen from the following polymers selected from the group consisting of:~~

- polyethers ~~such as polyethylene oxide (PEO), polypropylene oxide (PPO) or random copolymers of ethylene oxide (EO) and of propylene oxide (PO) ;~~
- polyvinyl methyl ethers ;
- polymeric and copolymeric N-substituted acrylamide derivatives with an LCST; and
- polyvinylcaprolactam and vinylcaprolactam copolymers.

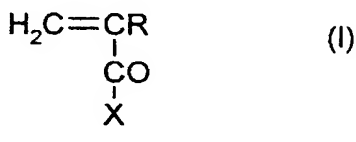
10. (Currently Amended) ~~Feaming~~ The composition according to ~~any one of Claims 1 to 9~~ Claim 1, in which the units with an LCST of the polymer ~~consist~~ comprises of polypropylene oxide (PPO)<sub>n</sub> with n being an integer from 10 to 50, or of random copolymers of ethylene oxide (EO) and of propylene oxide (PO), represented by the formula:



in which m is an integer ranging from of 1 to 40 and preferably from 2 to 20, and n is an integer ranging from of 10 to 60 and preferably from 20 to 50.

11. (Currently Amended) ~~Feaming~~ The composition according to Claim 10, in which the molar mass of the units with an LCST of the polymer is from 500 to 5300 g/mol ~~and preferably from 1 500 to 4000 g/mol~~.

12. (Currently Amended) ~~Feaming~~ The composition according to ~~any one of Claims 1 to 9~~ Claim 1, in which the units with an LCST of the polymer ~~consist of~~ comprise a polymer ~~chosen from~~ selected from the group consisting of  
poly-N-isopropylacrylamide,  
poly-N-ethylacrylamide, and  
copolymers of N-isopropylacrylamide or of N-ethylacrylamide and of a vinyl monomer ~~chosen from~~ selected from the group consisting of monomers having the formula (I) ~~given in Claim 6~~:



in which:

- R is H, -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub> or -C<sub>3</sub>H<sub>7</sub>, and

- X is:

- alkyl oxides of -OR' type in which R' is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 6 carbon atoms, optionally substituted with at least one halogen atom selected from the group consisting of iodine,

bromine, chlorine and fluorine; a sulphonic (-SO<sub>3</sub><sup>-</sup>), sulphate (-SO<sub>4</sub><sup>-</sup>), phosphate (-PO<sub>4</sub>H<sub>2</sub>); hydroxyl (-OH); primary amine (-NH<sub>2</sub>); secondary amine (-NHR<sub>1</sub>), tertiary amine (-NR<sub>1</sub>R<sub>2</sub>) or quaternary amine (-N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>) group with R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of R' + R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> does not exceed 7; and

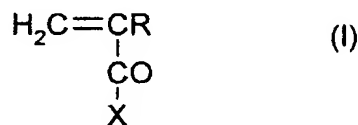
\_\_\_\_\_ -NH<sub>2</sub>, -NHR<sub>4</sub> and -NR<sub>4</sub>R<sub>5</sub> groups in which R<sub>4</sub> and R<sub>5</sub> are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon-based radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon atoms of R<sub>4</sub> + R<sub>5</sub> does not exceed 7, the said R<sub>4</sub> and R<sub>5</sub> optionally being substituted with a halogen atom (selected from the group consisting of iodine, bromine, chlorine or and fluorine); a hydroxyl (-OH); sulphonic (-SO<sub>3</sub><sup>-</sup>); sulphate (-SO<sub>4</sub><sup>-</sup>); phosphate (-PO<sub>4</sub>H<sub>2</sub>); primary amine (-NH<sub>2</sub>); secondary amine (-NHR<sub>1</sub>), tertiary amine (-NR<sub>1</sub>R<sub>2</sub>) and/or quaternary amine (-N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>) group with R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of R<sub>4</sub> + R<sub>5</sub> + R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> does not exceed 7,

maleic anhydride, itaconic acid, vinylpyrrolidone, styrene, ~~and its styrene~~ derivatives, dimethyldiallylammonium chloride, vinylacetamide, vinyl alcohol/vinyl acetate, vinyl ethers and vinyl acetate derivatives.

13. (Currently Amended) ~~Foaming~~ The composition according to Claim 12, in which the molar mass of the units with an LCST of the polymer is from 1000 g/mol to 500 000 g/mol ~~and preferably from 2000 to 50 000 g/mol.~~

14. (Currently Amended) ~~Foaming~~ The composition according to ~~any one of Claims 1 to 9~~ Claim 1, in which the units with an LCST of the polymer ~~consist of~~ comprises a polyvinylcaprolactam or a copolymer of vinylcaprolactam and of a vinyl monomer ~~chosen~~

~~from the~~ selected from the group consisting of monomers corresponding to formula (I) given in Claim 6:



in which:

- R is H, -CH<sub>3</sub>, -C<sub>2</sub>H<sub>5</sub> or -C<sub>3</sub>H<sub>7</sub>, and
- X is:
  - alkyl oxides of -OR' type in which R' is a linear or branched, saturated or unsaturated hydrocarbon-based radical containing from 1 to 6 carbon atoms, optionally substituted with at least one halogen atom selected from the group consisting of iodine, bromine, chlorine and fluorine; a sulphonic (-SO<sub>3</sub><sup>-</sup>), sulphate (-SO<sub>4</sub><sup>-</sup>), phosphate (-PO<sub>4</sub>H<sub>2</sub>); hydroxyl (-OH); primary amine (-NH<sub>2</sub>); secondary amine (-NHR<sub>1</sub>), tertiary amine (-NR<sub>1</sub>R<sub>2</sub>) or quaternary amine (-N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>) group with R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon-based radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of R' + R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> does not exceed 7; and
  - -NH<sub>2</sub>, -NHR<sub>4</sub> and -NR<sub>4</sub>R<sub>5</sub> groups in which R<sub>4</sub> and R<sub>5</sub> are, independently of each other, linear or branched, saturated or unsaturated hydrocarbon-based radicals containing 1 to 6 carbon atoms, with the proviso that the total number of carbon atoms of R<sub>4</sub> + R<sub>5</sub> does not exceed 7, the said R<sub>4</sub> and R<sub>5</sub> optionally being substituted with a halogen atom (selected from the group consisting of iodine, bromine, chlorine or and fluorine); a hydroxyl (-OH); sulphonic (-SO<sub>3</sub><sup>-</sup>); sulphate (-SO<sub>4</sub><sup>-</sup>); phosphate (-PO<sub>4</sub>H<sub>2</sub>); primary amine (-NH<sub>2</sub>); secondary amine (-NHR<sub>1</sub>), tertiary amine (-NR<sub>1</sub>R<sub>2</sub>) and/or quaternary

amine (-N<sup>+</sup>R<sub>1</sub>R<sub>2</sub>R<sub>3</sub>) group with R<sub>1</sub>, R<sub>2</sub> and R<sub>3</sub> being, independently of each other, a linear or branched, saturated or unsaturated hydrocarbon radical containing 1 to 6 carbon atoms, with the proviso that the sum of the carbon atoms of R<sub>4</sub> + R<sub>5</sub> + R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> does not exceed 7,

maleic anhydride, itaconic acid, vinylpyrrolidone, styrene and its derivatives, dimethyldiallylammonium chloride, vinylacetamide, vinyl alcohol, vinyl acetate, vinyl ethers and vinyl acetate derivatives.

15. (Currently Amended) ~~Feaming~~ The composition according to Claim 14, in which the molar mass of the units with an LCST is from 1000 to 500 000 g/mol ~~and preferably from 2000 to 50 000 g/mol.~~

16. (Currently Amended) ~~Feaming~~ The composition according to ~~any one of Claims 1 to 15~~ Claim 1, in which the proportion by mass of units with an LCST of the polymer is from 5 to 70%, ~~preferably from 20 to 65% and better still from 30 to 60%~~ relative to the polymer.

17. (Currently Amended) ~~Feaming~~ The composition according to ~~any one of Claims 1 to 16~~ Claim 1, in which the concentration by mass of polymer in the aqueous phase is from 0.1 to 20%.

18. (Currently Amended) ~~Feaming~~ The composition according to ~~any one of Claims 1 to 17~~ Claim 1, in which the aqueous phase ~~also optionally~~ further comprises a foaming surfactant.

19. (Currently Amended) ~~Feaming~~ The composition according to Claim 18, in which said foaming surfactant is nonionic.

20. (Currently Amended) ~~Composition~~ The composition according to ~~any one of Claims 1 to 19~~ Claim 1, in which the aqueous phase ~~consist of~~ comprises a physiologically acceptable medium ~~allowing a suitable for topical application and especially a cosmetic application.~~



21. (Currently Amended) ~~Composition~~ The composition according to the preceding claim Claim 20, characterized in that it constitutes wherein the composition is a shower gel, a facial cleansing product, a make-up-removing product, a shampoo, or a shaving foam or a shaving gel.

22. (Currently Amended) ~~Foam~~ A foam which may be obtained from the by foaming the composition according to any one of Claims 1 to 21 Claim 1, formed from wherein a dispersion of gas bubbles is formed in the continuous aqueous phase.

23. (Currently Amended) A method of stabilizing a foam formed from a composition comprising an aqueous phase, the method comprising adding a polymer to the aqueous phase wherein the polymer comprises water-soluble units and units having in water a lower critical solution temperature LCST, the heat-induced demixing temperature in aqueous solution of said units with an LCST being from 5 to 40°C for a concentration of said units in water of 1% by mass, and the concentration of said polymer in said composition being such that its gel point is in the range from 5 to 40°C of the composition Use of the polymer as described in Claim 1 to stabilize a foam at a temperature above its gel point.

24. (Cancelled)

25. (Currently Amended) ~~Cosmetic~~ A process for cleansing and/or removing make-up from keratin keratinous materials (skin, scalp, nails, eyelashes, eyebrows, eyes, mucous membranes, semi-mucous membranes and/or hair), characterized in that the composition according to any one of Claims 1 to 21 is applied comprising applying to the keratin keratinous materials the composition according to Claim 1, in the presence of water, forming a foam, and removing the foam formed and the soiling residues are removed by rinsing with water.

26. (New) The composition according to Claim 4, wherein the polymer is in the form of a grafted polymer whose backbone is formed by water-soluble units, wherein said backbone bearing grafts of units with an LCST is partially crosslinked.

27. (New) The composition according to Claim 7, wherein the water-soluble units of the polymer comprises alginate derivatives and the alginate derivative is propylene glycol alginate.

28. (New) The composition according to Claim 7, wherein the water-soluble units of the polymer comprises at least one cellulose derivative and the cellulose derivative is selected from the group consisting of carboxymethylcellulose, hydroxypropylcellulose, hydroxyethylcellulose and quaternized hydroxyethylcellulose.

29. (New) The composition according to Claim 7, wherein the water-soluble units of the polymer comprise at least one galactomannan derivative and the galactomannan derivative is selected from the group consisting of Konjac gum, guar gum, hydroxypropylguar, hydroxypropylguar modified with sodium methylcarboxylate groups, and hydroxypropyltrimethylammonium guar chloride.

30. (New) The composition according to Claim 9, where the one or more polymers is a polyether and the polyether is selected from the group consisting of polyethylene oxide; polypropylene oxide; and a random copolymer of ethylene oxide and of propylene oxide.

31. (New) The composition according to Claim 10, wherein the units with an LCST comprise a random copolymer of ethylene oxide and propylene oxide represented by  $(EO)_m(PO)_n$ , wherein m is an integer of 2 to 20.

32. (New) The composition according to Claim 10, wherein the units with an LCST comprise a random copolymer of ethylene oxide and propylene oxide represented by  $(EO)_m(PO)_n$ , wherein n is an integer of 20 to 50.

33. (New) The composition according to Claim 11, wherein the molar mass of the units with an LCST of the polymer is from 1,500 to 4000 g/mol.

34. (New) The composition according to Claim 13, wherein the molar mass of the units with an LCST of the polymer is from 2000 to 50 000 g/mol.

35. (New) The composition according to Claim 15, wherein the molar mass of the units with an LCST is from 2000 to 50,000 g/mol.

36. (New) The composition according to Claim 16, wherein the proportion by mass of units with an LCST of the polymer is from 20 to 65% relative to the polymer.

37. (New) The composition according to Claim 16, wherein the proportion by mass of units with an LCST of the polymer is from 30 to 60% relative to the polymer.

38. (New) The composition according to Claim 20, in which the topical application is a cosmetic application.

39. (New) The composition according to Claim 6, in which the water-soluble units are totally or partially capable of being obtained by free-radical polymerization.